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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,721	03/17/2004	Toshihisa Nagashii	0505-1279P	1878
2292	7590	06/27/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			LUM VANNUCCI, LEE SIN YEE	
			ART UNIT	PAPER NUMBER
			3611	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/801,721

Applicant(s)

NAGASHII ET AL.

Examiner

Lee Lum

Art Unit

3611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,7 and 13 is/are rejected.
- 7) ☒ Claim(s) 2-6,8-12 and 14-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. The disclosure is objected to because of the following informalities:

In the Spec

Under "Cross-Reference to Related Applications", a priority claim based on a foreign application is improper, only domestic priority may be claimed in this section.

In the Claims

The following elements lack antecedent basis:

In Claims 1, 7, 13 – flow area,

In Claims 2, 8, 14 – closing side, output power, opening side, exhaust gas flow resistance,

In Claims 6, 12, 18 - other end.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 7 and 13** are rejected under 35 U.S.C. 102(b) as being anticipated by Kawamata et al 6250076.

Kawamata discloses an exhaust system for a motorcycle 1 comprising

Body frame including elements 2, 4, 5,

Swingarm (unidentified in fig 1; attached to rear wheel) supported at a front end thereof for rocking motion,

Rear wheel axle (unidentified, inherent) at a rear end of the swingarm,

Engine 6 with cylinder head (unidentified in fig 1),

Rear end exhaust portion, including elements 10, 25, of an exhaust system connected to the cylinder head disposed at a position higher than the axle (fig 1),

Exhaust control valve 28, 32, for adjusting the flow area in exhaust pipe 23, disposed forwardly and upwardly of the axle (fig 1).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**A. Claims 2, 8 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamata in view of Takeuchi 4860538.

Kawamata does not disclose the valve as controlling engine output power, while Takeuchi shows this well-known objective (c1, ln 11-13) in c1, with emphasis on

Closing the valve at medium speeds to utilize gas pulsation (c1, ln 25-28), and  
Opening the valve at high speeds to reduce gas flow resistance (c1, ln 14-18).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this feature, as shown in Takeuchi, to control the expulsion of exhaust gases in order to increase power output, thus increase engine efficiency. The control of exhaust gases for various objectives is extremely well-known.

**B. Claims 3, 9 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamata in view of Takeuchi, and in further view of Chabry 5595062.

The previous references do not disclose the exhaust valve as located in an increased diameter portion, while Chabry provides this configuration in c12, first complete paragraph, with emphasis on lines 34-35; "... arrive at the exhaust valve is considerably prolonged", for disclosing the location of the valve as towards the end of the pipe assembly.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this arrangement, as shown in Chabry, to further control exhaust gas expulsion, thus increase power output. Varying the diameter/cross-sectional area of exhaust pipes for control of exhaust gas is very well-known.

**B. Claims 4-6, 10-12 and 16-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamata in view of Takeuchi and Chabry, and in further view of Yamada et al 6378471.

The previous references do not disclose the valve as including a shaft, and other specificities, while Yamada shows this configuration in fig 9, with

Valve 55 operated via shafts 61, 62, with bearings 59, 60 on either end,

The bearings having a cup-like housing, and,

Also serving as seals due to their material (c8, In 6-10),

Driven pulley 67, via wire 75, secured to one end of one shaft.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this arrangement, as shown in Yamada, as one well-known, and reliable, means by which a valve assembly can be operated, thus increasing performance and decreasing costs. This means is one of several in which a valve assembly may be operated, all means being functionally equivalent. Details such as the inclusion of bearings, seals, and other securing hardware, is extremely well-known, and application-dependent.

4. The prior art considered pertinent to the disclosure, but not relied upon, include(s): Yamada et al 6772588, Nakayasu et al 6609367, Kipp et al 5630571, Matsui 4896504, Kitta 4817374..

5. Communication with the Examiner/USPTO

Any inquiry concerning this communication, or others, should be directed to Ms. Lum at 571 272-6649, M-F, 9-5. If she cannot be reached, her supervisor, Ms. Lesley Morris, may be reached at 571 272-6651. Our central fax number is 703 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) System. For unpublished applications - private PAIR only. For published applications - private or public PAIR. For more information re PAIR - <http://pair-direct.uspto.gov>. Questions re private PAIR - contact the Electronic Business Center (EBC) at 866 217-9197.

Ms. Lee S. Lum-Vannucci  
Examiner  
6/23/05

